

Q2 REPORT ATTACHMENTS

Attachment 1 – Referenced Sections of the CERCLA NRDA Regulations

43 CFR § 11.14(j)

11.14 Definitions.

(j) Cost-effective or cost-effectiveness means that when two or more activities provide the same or a similar level of benefits, the least costly activity providing that level of benefits will be selected.

43 CFR § 11.23

§11.23 Preassessment screen--general.

(a) Requirement. Before beginning any assessment efforts under this part, except as provided for under the emergency restoration provisions of 11.21 of this part, the authorized official shall complete a preassessment screen and make a determination as to whether an assessment under this part shall be carried out.

(b) Purpose. The purpose of the preassessment screen is to provide a rapid review of readily available information that focuses on resources for which the Federal or State agency or Indian tribe may assert trusteeship under section 107(f) or section 126(d) of CERCLA. This review should ensure that there is a reasonable probability of making a successful claim before monies and efforts are expended in carrying out an assessment.

(c) Determination. When the authorized official has decided to proceed with an assessment under this part, the authorized official shall document the decision in terms of the criteria provided in paragraph (e) of this section in a Preassessment Screen Determination. This Preassessment Screen Determination shall be included in the Report of Assessment described in 11.90 of this part.

(d) Content. The preassessment screen shall be conducted in accordance with the guidance provided in this section and in 11.24--Preassessment screen--information on the site and 11.25--Preassessment screen--preliminary identification of resources potentially at risk, of this part.

(e) Criteria. Based on information gathered pursuant to the preassessment screen and on information gathered pursuant to the NCP, the authorized official shall make a preliminary determination that all of the following criteria are met before proceeding with an assessment:

(1) A discharge of oil or a release of a hazardous substance has occurred;

(2) Natural resources for which the Federal or State agency or Indian tribe may assert trusteeship under CERCLA have been or are likely to have been adversely affected by the discharge or release;

(3) The quantity and concentration of the discharged oil or released hazardous substance is sufficient to potentially cause injury, as that term is used in this part, to those natural resources;

(4) Data sufficient to pursue an assessment are readily available or likely to be obtained at reasonable cost; and

(5) Response actions, if any, carried out or planned do not or will not sufficiently remedy the injury to natural resources without further action.

(f) Coordination. (1) In a situation where

response activity is planned or underway at a particular site, assessment activity shall be coordinated with the lead agency consistent with the NCP.

(2) Whenever, as part of a response action under the NCP, a preliminary assessment or an OSC Report is to be, or has been, prepared for the site, the authorized official should consult with the lead agency under the NCP, as necessary, and to the extent possible use information or materials gathered for the preliminary assessment or OSC Report, unless doing so would unnecessarily delay the preassessment screen.

(3) Where a preliminary assessment or an OSC Report does not exist or does not contain the information described in this section, that additional information may be gathered.

(4) If the natural resource trustee already has a process similar to the preassessment screen, and the requirements of the preassessment screen can be satisfied by that process, the processes may be combined to avoid duplication.

(g) Preassessment phase costs. (1) The following categories of reasonable and necessary costs may be incurred in the preassessment phase of the damage assessment:

- (i) Release detection and identification costs;
- (ii) Trustee identification and notification costs;
- (iii) Potentially injured resource identification costs;
- (iv) Initial sampling, data collection, and evaluation costs;
- (v) Site characterization and preassessment screen costs; and (vi) Any other preassessment costs for activities authorized by 11.20 through 11.25 of this part.

(2) The reasonable and necessary costs for these categories shall be limited to those costs incurred by the authorized official for, and specifically allocable to, site-specific efforts taken during the preassessment phase for assessment of damages to natural resources for which the agency or Indian tribe is acting as trustee. Such costs shall be supported by appropriate records and documentation and shall not reflect regular activities performed by the agency or Indian tribe in management of the natural resource. Activities undertaken as part of the preassessment phase shall be taken in a manner that is cost-effective, as that phrase is used in this part.

43 CFR §11.80

§ 11.80 Damage Determination phase--general.

(a) Requirement. (1) The authorized official shall make his damage determination by estimating the monetary damages resulting from the discharge of oil or release of a hazardous substance based upon the information provided in the Quantification phase and the guidance provided in this Damage Determination phase.

(2) The Damage Determination phase consists of 11.80--general; 11.81--Restoration and Compensation Determination Plan; 11.82--alternatives for restoration, rehabilitation, replacement, and/or acquisition of equivalent resources; 11.83--cost estimating and valuation methodologies; and 11.84--implementation guidance, of this part.

(b) Purpose. The purpose of the Damage Determination phase is to establish the amount of money to be sought in compensation for injuries to natural resources resulting from a discharge of oil or release of a hazardous substance. The measure of damages is the cost of restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. Damages may also include, at the discretion of the authorized official, the compensable value of all or a portion of the services lost to the public for the time period from the discharge or release until the attainment of the restoration, rehabilitation, replacement, and/or acquisition of equivalent of the resources and their services to baseline.

(c) Steps in the Damage Determination phase. The authorized official shall develop a Restoration and Compensation Determination Plan, described in 11.81 of this part. To prepare this Restoration and Compensation Determination Plan, the authorized official shall develop a reasonable number of possible alternatives for restoration, rehabilitation, replacement, and/or acquisition of equivalent resources and select, pursuant to the guidance of 11.82 of this part, the most appropriate of those alternatives; and identify the cost estimating and valuation methodologies, described in 11.83 of this part, that will be used to calculate damages. The guidance provided in 11.84 of this part shall be followed in implementing the cost estimating and valuation methodologies. After public review of the Restoration and Compensation Determination Plan, the authorized official shall implement the Restoration and Compensation Determination Plan.

(d) Completion of the Damage Determination phase. Upon completion of the Damage Determination phase, the type B assessment is completed. The results of the Damage Determination phase shall be documented in the Report of Assessment described in 11.90 of this part.

43 CFR § 11.82

11.82 Damage Determination phase--alternatives for restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.

(a) Requirement. The authorized official shall develop a reasonable number of possible alternatives for the restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. For each possible alternative developed, the authorized official will identify an action, or set of actions, to be taken singly or in combination by the trustee agency to achieve the restoration, rehabilitation, replacement, and/or acquisition of equivalent natural resources and the services those resources provide to the baseline. The authorized official shall then select from among the possible alternatives the alternative that he determines to be the most appropriate based on the guidance provided in this section.

(b) Steps. (1) The authorized official shall develop a reasonable number of possible alternatives that would restore, rehabilitate, replace, and/or acquire the equivalent of the injured resources. Each of the possible alternatives may, at the discretion of the authorized official, consist of actions, singly or in combination, that would achieve those purposes.

(i) Restoration or rehabilitation actions are those actions undertaken to return injured resources to their baseline condition, as measured in terms of the physical, chemical, or biological properties that the injured resources would have exhibited or the services that would have been provided by those resources had the discharge of oil or release of the hazardous substance under investigation not occurred. Such actions would be in addition to response actions completed or anticipated pursuant to the National Contingency Plan (NCP).

(ii) Replacement or acquisition of the equivalent means the substitution for injured resources with resources that provide the same or substantially similar services, when such substitutions are in addition to any substitutions made or anticipated as part of response actions and when such substitutions exceed the level of response actions determined appropriate to the site pursuant to the NCP.

(iii) Possible alternatives are limited to those actions that restore, rehabilitate, replace, and/or acquire the equivalent of the injured resources and services to no more than their baseline, that is, the condition without a discharge or release as determined in 11.72 of this part.

(2) Services provided by the resources. (i) In developing each of the possible alternatives, the authorized official shall list the proposed actions that would restore, rehabilitate, replace, and/or acquire the equivalent of the services provided by the injured natural resources that have been lost, and the period of time over which these services would continue to be lost.

(ii) The authorized official shall identify services previously provided by the resources in their baseline condition in accordance with 11.72 of this part and compare those services with services now provided by the injured resources, that is, the with-a-discharge-or-release condition. All estimates of the with-a-discharge-or-release condition shall incorporate consideration of the ability of the resources to recover as determined in 11.73 of this part.

(c) Range of possible alternatives. (1) The possible alternatives considered by the authorized official that return the injured resources and their lost services to baseline level could range from: intensive action on the part of the authorized official to return the various resources and services provided by those resources to baseline conditions as quickly as possible; to natural recovery with minimal management actions. Possible alternatives within this range could reflect

varying rates of recovery, combination of management actions, and needs for resource replacements or acquisitions.

(2) An alternative considering natural recovery with minimal management actions, based upon the "No Action-Natural Recovery" determination made in 11.73(a)(1) of this part, shall be one of the possible alternatives considered.

(d) Factors to consider when selecting the alternative to pursue. When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:

(1) Technical feasibility, as that term is used in this part.

(2) The relationship of the expected costs of the proposed actions to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.

(3) Cost-effectiveness, as that term is used in this part.

(4) The results of any actual or planned response actions.

(5) Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.

(6) The natural recovery period determined in 11.73(a)(1) of this part.

(7) Ability of the resources to recover with or without alternative actions.

(8) Potential effects of the action on human health and safety.

(9) Consistency with relevant Federal, State, and tribal policies.

(10) Compliance with applicable Federal, State, and tribal laws.

(e) A Federal authorized official shall not select an alternative that requires acquisition of land for Federal management unless the Federal authorized official determines that restoration, rehabilitation, and/or other replacement of the injured resources is not possible.

Attachment 2 – Referenced Sections of the OPA NRDA Regulations

15 CFR §990.10

Sec. 990.10 Purpose.

The goal of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701 et seq., is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident).

This goal is achieved through the return of the injured natural resources and services to baseline and compensation for interim losses of such natural resources and services from the date of the incident until recovery. The purpose of this part is to promote expeditious and cost-effective restoration of natural resources and services injured as a result of an incident. To fulfill this purpose, this part provides a natural resource damage assessment process for developing a plan for restoration of the injured natural resources and services and pursuing implementation or funding of the plan by responsible parties. This part also provides an administrative process for involving interested parties in the assessment, a range of assessment procedures for identifying and evaluating injuries to natural resources and services, and a means for selecting restoration actions from a reasonable range of alternatives.

15 CFR §990.15

Sec. 990.15 Considerations to facilitate restoration.

In addition to the procedures provided in subparts D through F of this part, trustees may take other actions to further the goal of expediting restoration of injured natural resources and services, including:

(a) Pre-incident planning. Trustees may engage in pre-incident planning activities. Pre-incident plans may identify natural resource damage assessment teams, establish trustee notification systems, identify support services, identify natural resources and services at risk, identify area and regional response agencies and officials, identify available baseline information, establish data management systems, and identify assessment funding issues and options. Potentially responsible parties, as well as all other members of the public interested in and capable of participating in assessments, should be included in pre-incident planning to the fullest extent practicable.

(b) Regional Restoration Plans. Where practicable, incident- specific restoration plan development is preferred, however, trustees may develop Regional Restoration Plans. These plans may be used to support a claim under Sec. 990.56 of this part. Regional restoration planning may consist of compiling databases that identify, on a regional or watershed basis, or otherwise as appropriate, existing, planned, or proposed restoration projects that may provide appropriate restoration alternatives for consideration in the context of specific incidents.

15 CFR § 990.53

Sec. 990.53 Restoration selection--developing restoration alternatives.

(a) General. (1) If the information on injury determination and quantification under Secs. 990.51 and 990.52 of this part and its relevance to restoration justify restoration, trustees may proceed with the Restoration Planning Phase. Otherwise, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to this point.

(2) Trustees must consider a reasonable range of restoration alternatives before selecting their preferred alternative(s). Each restoration alternative is comprised of primary and/or compensatory restoration components that address one or more specific injury(ies) associated with the incident. Each alternative must be designed so that, as a package of one or more actions, the alternative would make the environment and public whole. Only those alternatives considered technically feasible and in accordance with applicable laws, regulations, or permits may be considered further under this part.

(b) Primary restoration. (1) General. For each alternative, trustees must consider primary restoration actions, including a natural recovery alternative.

(2) Natural recovery. Trustees must consider a natural recovery alternative in which no human intervention would be taken to directly restore injured natural resources and services to baseline.

(3) Active primary restoration actions. Trustees must consider an alternative comprised of actions to directly restore the natural resources and services to baseline on an accelerated time frame. When identifying such active primary restoration actions, trustees may consider actions that:

(i) Remove conditions that would prevent or limit the effectiveness of any restoration action (e.g., residual sources of contamination);

(ii) May be necessary to return the physical, chemical, and/or biological conditions necessary to allow recovery or restoration of the injured natural resources (e.g., replacing substrate or vegetation, or modifying hydrologic conditions); or

(iii) Return key natural resources and services, and would be an effective approach to achieving or accelerating a return to baseline (e.g., replacing essential species, habitats, or public services that would facilitate the replacement of other, dependent natural resource or service components).

(c) Compensatory restoration. (1) General. For each alternative, trustees must also consider compensatory restoration actions to compensate for the interim loss of natural resources and services pending recovery.

(2) Compensatory restoration actions. To the extent practicable, when evaluating compensatory restoration actions, trustees must consider compensatory restoration actions that provide services of the same type and quality, and of comparable value as those injured. If, in the judgment of the trustees, compensatory actions of the same type and quality and comparable value cannot provide a reasonable range of alternatives, trustees should identify actions that provide natural resources and services of comparable type and quality as those provided by the injured natural resources. Where the injured and replacement natural resources and services are not of comparable value, the scaling process will involve valuation of lost and replacement

services.

(d) Scaling restoration actions. (1) General. After trustees have identified the types of restoration actions that will be considered, they must determine the scale of those actions that will make the environment and public whole. For primary restoration actions, scaling generally applies to actions involving replacement and/or acquisition of equivalent of natural resources and/or services.

(2) Resource-to-resource and service-to-service scaling approaches. When determining the scale of restoration actions that provide natural resources and/or services of the same type and quality, and of comparable value as those lost, trustees must consider the use of a resource-to-resource or service-to-service scaling approach. Under this approach, trustees determine the scale of restoration actions that will provide natural resources and/or services equal in quantity to those lost.

(3) Valuation scaling approach. (i) Where trustees have determined that neither resource-to-resource nor service-to-service scaling is appropriate, trustees may use the valuation scaling approach. Under the valuation scaling approach, trustees determine the amount of natural resources and/or services that must be provided to produce the same value lost to the public. Trustees must explicitly measure the value of injured natural resources and/or services, and then determine the scale of the restoration action necessary to produce natural resources and/or services of equivalent value to the public.

(ii) If, in the judgment of the trustees, valuation of the lost services is practicable, but valuation of the replacement natural resources and/or services cannot be performed within a reasonable time frame or at a reasonable cost, as determined by Sec. 990.27(a)(2) of this part, trustees may estimate the dollar value of the lost services and select the scale of the restoration action that has a cost equivalent to the lost value. The responsible parties may request that trustees value the natural resources and services provided by the restoration action following the process described in Sec. 990.14(c) of this part.

(4) Discounting and uncertainty. When scaling a restoration action, trustees must evaluate the uncertainties associated with the projected consequences of the restoration action, and must discount all service quantities and/or values to the date the demand is presented to the responsible parties. Where feasible, trustees should use risk-adjusted measures of losses due to injury and of gains from the restoration action, in conjunction with a riskless discount rate representing the consumer rate of time preference. If the streams of losses and gains cannot be adequately adjusted for risks, then trustees may use a discount rate that incorporates a suitable risk adjustment to the riskless rate.

15 CFR §990.54

Sec. 990.54 Restoration selection--evaluation of alternatives.

(a) Evaluation standards. Once trustees have developed a reasonable range of restoration alternatives under Sec. 990.53 of this part, they must evaluate the proposed alternatives based on, at a minimum:

- (1) The cost to carry out the alternative;
- (2) The extent to which each alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses;
- (3) The likelihood of success of each alternative;
- (4) The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative;
- (5) The extent to which each alternative benefits more than one natural resource and/or service; and
- (6) The effect of each alternative on public health and safety.

(b) Preferred restoration alternatives. Based on an evaluation of the factors under paragraph (a) of this section, trustees must select a preferred restoration alternative(s). If the trustees conclude that two or more alternatives are equally preferable based on these factors, the trustees must select the most cost-effective alternative.

(c) Pilot projects. Where additional information is needed to identify and evaluate the feasibility and likelihood of success of restoration alternatives, trustees may implement restoration pilot projects. Pilot projects should only be undertaken when, in the judgment of the trustees, these projects are likely to provide the information, described in paragraph (a) of this section, at a reasonable cost and in a reasonable time frame.

15 CFR §990.56

Sec. 990.56 Restoration selection--use of a Regional Restoration Plan or existing restoration project.

(a) General. Trustees may consider using a Regional Restoration Plan or existing restoration project where such a plan or project is determined to be the preferred alternative among a range of feasible restoration alternatives for an incident, as determined under Sec. 990.54 of this part. Such plans or projects must be capable of fulfilling OPA's intent for the trustees to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources and services and compensate for interim losses.

(b) Existing plans or projects--(1) Considerations. Trustees may select a component of a Regional Restoration Plan or an existing restoration project as the preferred alternative, provided that the plan or project:

(i) Was developed with public review and comment or is subject to public review and comment under this part;

(ii) Will adequately compensate the environment and public for injuries resulting from the incident;

(iii) Addresses, and is currently relevant to, the same or comparable natural resources and services as those identified as having been injured; and

(iv) Allows for reasonable scaling relative to the incident.

(2) Demand. (i) If the conditions of paragraph (b)(1) of this section are met, the trustees must invite the responsible parties to implement that component of the Regional Restoration Plan or existing restoration project, or advance to the trustees the trustees' reasonable estimate of the cost of implementing that component of the Regional Restoration Plan or existing restoration project.

(ii) If the conditions of paragraph (b)(1) of this section are met, but the trustees determine that the scale of the existing plan or project is greater than the scale of compensation required by the incident, trustees may only request funding from the responsible parties equivalent to the scale of the restoration determined to be appropriate for the incident of concern. Trustees may pool such partial recoveries until adequate funding is available to successfully implement the existing plan or project.

(3) Notice of Intent To Use a Regional Restoration Plan or Existing Restoration Project. If trustees intend to use an appropriate component of a Regional Restoration Plan or existing restoration project, they must prepare a Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project. Trustees must make a copy of the notice publicly available. The notice must include, at a minimum:

(i) A description of the nature, degree, and spatial and temporal extent of injuries; and

(ii) A description of the relevant component of the Regional Restoration Plan or existing restoration project; and

(iii) An explanation of how the conditions set forth in paragraph (b)(1) of this section are met.

Attachment 3 – Taylor, “Legal Guidance Regarding Natural Resource Damage Restoration Under CERCLA and OPA”



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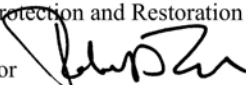
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FROM: Robert A. Taylor 
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SUBJECT: Legal Guidance Regarding Natural Resource Damage Restoration
Under CERCLA and OPA

Natural resource trustees planning and carrying out natural resource damage restoration actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §9601, *et seq.*, or the Oil Pollution Act of 1990 (OPA), 33 U.S.C. §2701, *et seq.*, often must choose between multiple and competing restoration proposals. Restoring injured or lost resources or services to baseline levels (*i.e.*, primary restoration) usually involves a limited set of alternatives, since the focus of the restoration efforts is usually clear. Actions to compensate for interim losses, however, can potentially include a much broader range of options, and planning compensatory restoration can sometimes elicit novel and unexpected proposals. As a result, trustees occasionally find themselves hard-pressed to choose between restoration alternatives and to publicly explain or defend their choices.

This memorandum has been prepared to identify the legal constraints applicable to natural resource damage restoration under CERCLA and OPA.¹ This memorandum attempts to

¹The provisions of the National Marine Sanctuaries Act (NMSA) relating to use of recovered damages (16 U.S.C. §1443(d)(2)) are considerably broader than those in CERCLA or OPA. Use of damages to restore, replace or acquire the equivalent of injured resources is identified as a first priority, but the agency is also permitted to use damage recoveries to restore



define the outer boundaries of what the agency may do as a matter of law, leaving program managers free to adopt further constraints, conditions or priorities within those boundaries as a matter of agency and program policy. For ease of reference, I have also attached a short synopsis of the main points of this memorandum.

Applicable Statutory and Regulatory Provisions

Neither CERCLA nor OPA provides significant guidance in determining whether a proposed restoration project is acceptable as a matter of law. CERCLA requires only that the trustees use recovered damages “to restore, replace or acquire the equivalent of such resources,” 42 U.S.C. § 9607(f)(1), without defining the terms “restore” or “restoration.” OPA similarly authorizes trustees to use recovered damages to reimburse or pay the costs to develop and implement “a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources.” 33 U.S.C. §§ 2706(c)(1)(c) and (f). Like CERCLA, OPA does not define the terms “restoration, rehabilitation, replacement or acquisition of the equivalent.”

Implementing regulations under the two statutes offer some further direction. The CERCLA regulations provide that the trustees are to determine the scale of natural resource damages by developing a Restoration and Compensation Determination Plan (RCDP). 43 C.F.R. § 11.81(a)(1). Damages are based on the cost to implement alternatives identified in the RCDP for restoring injured resources and resource services to baseline, plus the compensable value of interim lost services. 43 C.F.R. § 11.80(b). The regulations identify permissible alternatives for restoration or rehabilitation actions as those designed to return injured resources to their baseline condition “as measured in terms of the physical, chemical, or biological properties that the injured resources would have exhibited or the services that would have been provided by those resources.” 43 C.F.R. § 11.82(b)(1)(i). Similarly, alternatives for replacement or acquisition of the equivalent of the injured resources can include “the substitution for injured resources with resources that provide the same or substantially similar services.” 43 C.F.R. § 11.82(b)(1)(ii). The CERCLA regulations provide that the trustees also are to develop a Restoration Plan for implementing post-judgment or post-settlement restoration actions, which is to be based on the RCDP. 43 C.F.R. § 11.93(a). The Restoration Plan is to describe what restoration, rehabilitation, replacement, or acquisition of the equivalent resources will occur. Where the trustees have recovered damages for compensable value, the Restoration Plan is also to describe “how monies will be used to address the services that are lost to the public until restoration, rehabilitation, replacement, and/or acquisition of equivalent resources is completed.” *Id.*

The OPA regulations provide that, in identifying primary restoration alternatives (restoration to baseline), the trustees may consider actions that remove limiting conditions; that “may be necessary to return the physical, chemical, and/or biological conditions necessary to allow recovery or restoration of the injured natural resources (e.g., replacing substrate or vegetation, or modifying hydrologic conditions)” or that return key natural resources and services. 15 CFR § 990.53(b)(3). In planning compensatory restoration actions, the OPA regulations set out a hierarchy of decision making under which the trustees are to consider first

degraded resources in the affected sanctuary or in other sanctuaries.

“actions that provide services of the same type and quality, and of comparable value as those injured.” If compensatory actions of the same type and quality and of comparable value cannot provide a reasonable range of alternatives then the trustees are to consider “actions that provide natural resources and services of comparable type and quality as those provided by the injured natural resources.” 15 C.F.R. §990.53(c)(2).

Both sets of regulations set out criteria for evaluating and selecting among alternative projects. The CERCLA regulations direct trustees to:

[E]valuate each of the possible alternatives based on all relevant considerations, including the following factors:

- (1) Technical feasibility, as that term is used in this part.
- (2) The relationship of the expected costs of the proposed actions to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
- (3) Cost-effectiveness, as that term is used in this part.
- (4) The results of any actual or planned response actions.
- (5) Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.
- (6) The natural recovery period determined in 11.73(a)(1) of this part.
- (7) Ability of the resources to recover with or without alternative actions.
- (8) Potential effects of the action on human health and safety.
- (9) Consistency with relevant Federal, State, and tribal policies.
- (10) Compliance with applicable Federal, State, and tribal laws.

43 C.F.R. §11.82(d).

The OPA regulations identify technical feasibility and compliance with the law as threshold criteria that any alternative must satisfy to be considered further. 15 C.F.R. § 990.53(a)(2). Alternatives that satisfy the threshold criteria are to be evaluated based on, at a minimum:

- (1) The cost to carry out the alternative;
- (2) The extent to which each alternative is expected to meet the trustees’ goals and objectives in returning the injured natural resources and services to baseline and/or

compensating for interim losses;

(3) The likelihood of success of each alternative;

(4) The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative;

(5) The extent to which each alternative benefits more than one natural resource and/or service; and

(6) The effect of each alternative on public health and safety.

15 C.F.R. §990.54(a).

Within the broad terms of the applicable statutes and implementing regulations, trustee representatives have a considerable range of discretion in choosing among alternative restoration projects. Trustee agencies may, as a matter of policy, choose to limit that discretion by ruling out certain types of restoration projects, prioritizing types of projects or approaches or requiring consideration of additional factors or criteria consistent with the statutes and regulations. Agency counsel often must judge whether trustees may select a given restoration proposal, or are compelled to reject a proposal, consistently with applicable law. The legality of a particular proposed project will necessarily depend upon the specific facts of the case, the terms of the relevant statute and regulations and any applicable consent decree or settlement agreement. To assist case attorneys in making those judgments and to guide NOAA trustee council representatives, the NOAA Office of General Counsel, GCNR, has identified the following as fundamental legal constraints applicable to any CERCLA or OPA restoration project.

1) Threshold Criteria

The following constitute criteria that each selected restoration alternative must independently satisfy.

a) Restoration actions must have some demonstrable reasonable relationship to the injuries giving rise to the claim for natural resource damages

The Trustees must show that there is a reasonable nexus between the restoration and the injuries. CERCLA and OPA both require that the Trustees demonstrate some linkage between the resource injuries giving rise to the damages claim and proposed restoration projects. CERCLA requires the trustees to use collected damages only to “restore, replace, or acquire the equivalent of *such natural resources*.” 42 U.S.C. §9607(f)(1) (emphasis added). OPA likewise provides that recovered damages shall be used only to reimburse the costs to implement a plan “for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship.” 33 U.S.C. § 2706(c)(1)(c). Both statutes require that recovered damages be used to address the injuries giving rise to the recovery. For purposes of restoring injured resources to baseline, the CERCLA regulations give the Trustees the choice of linking the restoration to the injuries either in terms of the physical, chemical, or biological

properties of the injured resource or in terms of the resource services lost due to the injuries. 43 C.F.R. § 11.82(b)(1)(i). The OPA regulations require the trustees to consider “the extent to which each alternative is expected to meet the trustees’ goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses.” 15 C.F.R. § 990.54(a). The Trustees must establish this linkage by demonstrating some reasonable relationship between the proposed restoration actions and the injuries giving rise to the recovered damages.

By logical extension, this reasonable nexus requirement would apply to restoration actions undertaken by a potentially responsible party in settlement of a natural resource damages claim or to restoration actions undertaken by Trustees with recovered damages. Consequently, any restoration action arising from the resolution of a natural resource damages claim under CERCLA or OPA must have some demonstrable reasonable relationship to the injuries giving rise to the claim.

Determining whether a reasonable relationship between the injuries and the proposed restoration exists will depend mainly upon the facts of the case. In the case of restoration in-kind and in-place (*i.e.*, the same type of natural resource or habitat as that documented to be injured, in the same location as where the injuries occurred), a reasonable relationship to the resource injuries is usually manifest and easily articulated. As restoration projects move away from in-kind or in-place (*i.e.*, different type or location), the linkage will diminish or become less apparent, and there is a greater need to explain and demonstrate the relationship. The nature of the relationship will depend upon the resources and restoration actions at issue. For example, in demonstrating that a restoration project located some distance from where the resource injuries occurred is related to the injured resources, trustees might point to species migratory patterns, species home range, patterns of habitat use, affected life stages, predator/prey relationships, watershed drainages, landscape connections, etc. In demonstrating that a project intended to restore human uses is reasonably related to uses lost at a different location, trustees should be able to show that the affected user groups would likely make use of the project.

The quantum and type of proof required to demonstrate an injury/restoration nexus will depend upon a variety of circumstances, including the procedural or legal context in which the project is being proposed. The relevant case law does not yet provide definitive guidance on the standard of review for a restoration plan presented for purposes of scaling a damages claim. To be on the safe side, in a litigation context trustees should be prepared to demonstrate the relationship between the injuries and the proposed restoration assuming a preponderance of the evidence proof standard and based upon admissible scientific evidence. In a post-settlement context in which trustees have retained the discretion to choose among alternative restoration proposals, trustees should assume that their decisions will be reviewed based on an administrative record and subject to the arbitrary and capricious standard. Consequently, the sufficiency with which trustees must demonstrate a reasonable relationship between proposed restoration and resource injuries will vary depending upon the scrutiny to which the project selection will be subjected.

It is important to note that to prove a relationship between a proposed restoration project and natural resource injuries, or to prove that other applicable criteria are satisfied, trustees must

do more than merely state the conclusion that a relationship exists or that a criterion is met. Trustees must explicitly articulate the facts and analysis that lead to the conclusion. Trustee representatives often rely upon the best professional judgment of colleagues in choosing between restoration alternatives. However, merely citing to best professional judgment to support a decision simply asserts a bald conclusion unless the trustees specifically articulate the reasoning that underlies the judgment call.

b) Restoration options chosen must be technically feasible and have a significant likelihood of success

A proposal that is infeasible is presumptively unreasonable and would be subject to the charge that its selection was arbitrary and capricious. The CERCLA regulations identify technical feasibility as a factor for selecting among alternatives. 43 C.F.R. §11.82(d). The regulations define technical feasibility as:

(qq) Technical feasibility or technically feasible means that the *technology* and *management skills* necessary to implement an Assessment Plan or Restoration and Compensation Determination Plan are well known and that each element of the plan has a reasonable chance of successful completion in an acceptable period of time.

43 C.F.R. §11.14 (emphasis added). The OPA regulations identify technical feasibility as a threshold criterion: “Only those alternatives considered technically feasible and in accordance with applicable laws, regulations, or permits may be considered further under this part.” 15 C.F.R. §990.53(a)(2). The OPA regulations also list the likelihood of success as a factor in evaluating alternatives. 15 C.F.R. § 990.54(a).

At a minimum, for a restoration proposal to be technically feasible there must be evidence the technology exists and that the technology can actually be applied to achieve the restoration goal. This does not preclude the use of existing technology in new and creative ways so long as the trustees can identify grounds for determining there is a reasonable probability of successful implementation. For new or unproven technologies, the trustees must likewise provide technical justification demonstrating a reasonable basis to believe that the project will be successful.

The CERCLA regulations’ definition of “technically feasible” underscores that the analysis should consider not just the efficacy of the technology to be used but the management feasibility of the project. Among factors that can affect management feasibility are the depth of experience and track record of the proposed project managers in carrying out similar projects, the adequacy of staffing levels and the extent to which effective oversight can be exercised. Projects by third parties with a poor or non-existent track record or with inadequate staffing, or by parties over whom the Trustees have no effective control or ability to exercise oversight, may lack technical feasibility even where the technology to be used has been effective in other cases.

c) Restoration projects must comply with applicable laws and regulations

Natural resource damage restoration projects must comply both with the underlying statute giving rise to the claim and with the terms of applicable consent decrees or settlement

agreements. Trustee restoration projects will usually also be subject to legal requirements applicable to comparable projects developed by private parties, including requirements relating to environmental reviews and permitting². Other potentially applicable legal requirements arise when government agencies develop restoration projects, including requirements relating to public contracting and funds management. Restoration projects must comply with all applicable laws and regulations. 43 C.F.R. §11.82(d)(10); 15 C.F.R. §990.53(a)(2).

Another potential source of legal requirements applicable to restoration projects is a treaty between the United States and recognized Indian tribes. Indian tribes in some parts of the country retain rights by treaty to use natural resources for subsistence, commercial, ceremonial and/or religious purposes. Trustees are obliged to avoid interfering with the exercise of treaty rights and must take those treaty rights into consideration in selecting, designing and implementing restoration projects. The CERCLA regulations identify applicable tribal laws as among those with which restoration projects must comply. 43 C.F.R. §11.82(d)(10). The CERCLA regulations further require trustees to evaluate compliance with relevant Federal, State, and tribal policies. 43 C.F.R. §11.82(d)(9).

d) Restoration projects must be consistent with adopted restoration plans

The trustees must implement restoration projects consistently with adopted restoration plans. CERCLA requires that natural resource damage recoveries not be used until a plan for the use of the damages is developed and adopted after public notice and comment. 42 U.S.C. § 9611(i). The CERCLA regulations further require the trustees to use natural resource damage recoveries to implement the restoration plan adopted for the injured natural resources. 43 C.F.R. §11.93(a)

OPA similarly requires that natural resource damage recoveries not be used until a restoration plan is developed and adopted after public notice and comment. 33 U.S.C. §2706(c) and (f). The OPA regulations also require the trustees to use natural resource damage recoveries to implement the adopted restoration plan. 15 C.F.R. §990.65(a); *see also General Electric Co. v. Dept. of Commerce*, 128 F.3d 767, 777 and 779 (D.C. Cir. 1997).

2) Additional Considerations in Selecting a Restoration Option

The following considerations must be taken into account when evaluating the appropriateness of a given restoration option and comparing the desirability of competing proposals. No one consideration necessarily takes precedence over the others. The weight given to the considerations will vary depending on site-specific issues.

²Restoration projects designed and carried out by responsible parties under EPA auspices as a part of a remedial action at a Superfund site may be exempt from normal permitting requirements. 42 U.S.C. § 9621(e)(1). However, to give the responsible party credit for such actions against natural resource damage claims, the Trustees will need to insure that their scaling of natural resource damage losses and gains distinguishes between actions required to satisfy other statutory obligations and those done to address natural resource damage liabilities.

a) Cost-effectiveness and relationship of benefits expected from the project and the costs of implementation.

CERCLA regulations provide that trustees are to consider the “relationship of the expected costs of the proposed actions to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources” and “[c]ost-effectiveness, as that term is used in this part,” in evaluating restoration alternatives. 43 C.F.R. §11.82(d)(2) and (3). The OPA damage assessment regulations provide that trustees should consider the cost to carry out an alternative (15 C.F.R. §990.54(a)(1)), and must select the most cost-effective of two otherwise equally preferable alternatives. 15 C.F.R. §990.54(b). The OPA rulemaking preamble makes it clear, however, that the cost-effectiveness analysis is not intended to be “a strict comparison of restoration costs to monetized natural resource values,” so much as a “qualitative cost-benefit analysis” that results from considering a range of factors that includes the cost to carry out the alternative. 61 Fed. Reg. 454, 489-90 (Jan. 5, 1996).

b) Community acceptance

The CERCLA and OPA regulations require public review of proposed restoration plans. 43 C.F.R. §§11.31(c)(1) and 11.81(d)(2); 15 C.F.R. §990.55(a). CERCLA, at 42 U.S.C. § 9611(i), and OPA, at 33 U.S.C. §2706(c)(5), also require that damages be spent in accordance with a restoration plan adopted after opportunity for public review and comment. The requirement for public review and comment implies that community acceptance be considered in choosing among restoration alternatives. The preamble to the OPA regulations notes: “NOAA is mindful that restoration decisions made by trustees are made on behalf of the public, so public involvement should augment the decision making process.” 61 Fed. Reg. 462 (Jan. 5, 1996).

The fact that a restoration proposal does not have community acceptance does not, by itself, render a proposal contrary to law. Nor does lack of community acceptance necessarily have any bearing on the question of whether the proposed restoration bears a demonstrable reasonable relationship to the injured resources. In the case of a project intended to restore lost human uses, however, lack of community acceptance raises questions about whether the projects will be taken advantage of by the intended user groups. The lack of community acceptance in such cases can cast doubt on whether the project is feasible or has a reasonable likelihood of success in addressing the resource injuries. In addition, because long-term stewardship of permanent restoration projects will ultimately depend in some measure upon ‘policing’ by the general public, community acceptance can be critical to the long-term success of the project.

Community acceptance can play a significant role in obtaining needed permits and environmental review for restoration projects. Whether a restoration project can be successfully implemented may ultimately depend, in part, on community acceptance. By the same token public review and comment requirements can become an opportunity for community outreach and education efforts. These efforts can be useful both to determine the degree of community support for a given restoration option and to garner support for unfamiliar proposals. This is particularly important when the public is not well versed in the statutory or policy requirements governing the trustees, may have preconceived notions on how best to use recovered monies, and/or have concerns about the appropriateness or adequacy of the project itself.

c) Longevity of the restoration project; enforceability of public interest in project

It is not necessary as a legal matter in all cases for a restoration project to be permanent. Rather, the minimum longevity of the project depends upon the relationship between the project and the damages claim asserted. Where a restoration project is designed and intended to address a permanent loss of an area of natural resource habitat, to fully compensate for the loss the property must provide habitat services in perpetuity. In cases where the losses are scaled based upon finite time frames (*i.e.*, non-permanent losses), restoration offered in compensation need not provide infinite (*i.e.*, perpetual) service flows to be considered legally sufficient. Where trustees agree to the transfer of a less-than-permanent interest in real property in settlement of a natural resource damages claim, they must be able to demonstrate that the length of the interest is proportionate in scale to the claim being settled.

As with the community acceptance criterion, the longevity of the project may be a significant factor in judging the likelihood of success of a restoration proposal and in evaluating competing proposals. In areas subject to development pressures, a permanent interest in a restoration project site may be necessary to demonstrate a reasonable likelihood of project success. Where a project involves the planting of species that take a long time to mature, the project may only be feasible if permanent ownership of the project site is obtained. Likewise, project longevity would be an important factor in any analysis of the relationship between project cost and benefits expected.

Project ownership and custodianship arrangements should reflect the intended project longevity. Projects designed to be permanent in nature should involve permanent transfers of underlying property interests to an entity that it is reasonable to assume will continue in existence permanently and be permanently capable of enforcing the property interest. Where a non-governmental entity is selected as the ultimate recipient of the underlying property interest for a project site, one or more trustees must at least have a contractual right, equal in duration to the property interest, to compel the custodian to enforce the property interest. The inability to obtain that right in such cases would raise serious questions about the likelihood of project success.

d) Integration with existing management programs; matching funding sources; duplication or substitution for other authorities

Significant administrative cost savings can be realized if restoration projects are selected and designed to be integrated into existing resource management programs. For example, land acquired and added to an existing refuge may be more cost-effectively managed than an isolated property. Such integration allows the trustees to leverage the environmental benefits generated by the project. Programmatic (as opposed to property-based) restoration projects (*e.g.*, public education and awareness, resource inventories, etc.) can also be fruitfully designed to complement similar programs under other authorities. Projects that take advantage of opportunities to generate synergisms with other restoration projects or management programs may, in individual cases, be preferable for use over other restoration alternatives.

When trustees choose to partner with existing management programs run by one of the trustee agencies or tribes, the trustees must ensure that the evaluation of alternative projects is

fair and objective. The fact that recovered damages are being used to benefit an existing agency program can give rise to criticism by proponents of rejected alternatives and closer public scrutiny of trustee decisions. The trustees should ensure the record of their decision shows a balanced analysis of available alternatives in light of adopted project selection criteria and that it clearly supports the alternative chosen.

Trustees need to ensure that any constraints on or policies of programs with which they are partnering do not conflict with or prevent realizing trustee restoration goals. As with natural resource damage claims, other resource management authorities or programs may require habitat creation or enhancement to compensate for natural resource losses or as a condition of permit approval (e.g., wetland fill mitigation requirements pursuant to Section 404 of the Clean Water Act, supplemental environmental projects in lieu of civil or criminal penalties, conditions imposed in Endangered Species Act Section 7 consultations, etc.). Each of these independent authorities represents the legislative intent to mitigate for, offset, or recover for distinct losses. As a result, if trustees grant credit against natural resource damage claims for mitigation or restoration actions required under other authorities they would fail to achieve the goals of the different statutory responsibilities. While it may generate synergistic benefits and save on administrative costs to combine natural resource restoration projects with Section 404 fill mitigation projects, for example, trustees must ensure that the combination of the two does not result in double counting or less than full compensation for natural resource losses.

e) Other regulatory criteria

The CERCLA and OPA regulations provide other factors, listed above, that trustees are to consider in evaluating alternative proposals, including, *inter alia*, prevention of future or collateral injury (43 C.F.R. §11.82(d)(5); 15 C.F.R. §990.54(a)(4)); effect on public health and safety (43 C.F.R. §11.82(d)(8); 15 C.F.R. §990.54(a)(6)); and the extent to which each alternative benefits more than one natural resource and/or service (15 C.F.R. §990.54(a)(5)). These criteria do not in themselves establish legal limits on what is permissible so much as they identify factors that would weigh in any analysis of whether the trustees acted reasonably in selecting a particular project. Trustees must ensure that the record of their decision in selecting between alternatives demonstrates consideration of these factors.

3) Particular Circumstances

a) Prevention of future injuries or losses

Some natural resource damage restoration projects designed explicitly to prevent future injuries or losses have generated considerable debate, often because the relationship to the injuries giving rise to the natural resource claims has not been readily apparent. The law does not prohibit selecting a restoration alternative simply because the project is primarily aimed at preventing future losses of other resources, as opposed to direct restoration of the injured resources. In addition to showing a nexus between the injured resources and those being protected, trustees proposing a project intended only to prevent future injuries or losses need to demonstrate the reasonable likelihood that the losses to be prevented would otherwise occur and the ability of the proposed project to prevent those losses.

b) Habitat Acquisition

Habitat acquisition in essence represents a particular form of preventing future injuries or losses. Acquisition of habitat can be an attractive restoration alternative because it may be fairly simple to carry out and can result in permanent benefits. However, acquisition in and of itself represents nothing more than changing the name on property documents; it generates an environmental benefit only by preventing the alteration or loss of the habitat in the future. Habitat acquisition is appropriate when there is a reasonable expectation that the habitat would otherwise be developed and no other laws would adequately protect it. An obvious constraint on habitat acquisition for natural resource restoration is the requirement in CERCLA and OPA that the trustees use damages to “acquire the equivalent” of the injured resources. As long as the benefits or services to be preserved or gained through the habitat acquisition are shown to be reasonably related to (*i.e.*, are “equivalent” to) the resource injuries giving rise to the claim, and trustees demonstrate that there is a reasonable likelihood that the habitat values on the property would otherwise be lost, habitat acquisition is a legally acceptable restoration alternative.³

c) Research; data collection and analysis

Trustees often are faced with restoration project proposals that consist only of data collection and analysis and that might be characterized more as research than restoration. Typically, such proposals arise in one of three forms: 1) research done in advance of active restoration to prioritize or design restoration actions; 2) data collection and analysis as part of monitoring to assess the performance or success of restoration projects; and 3) data collection and analysis independent of any on-the-ground project and apparently proposed solely for the purpose of research. Research as part of restoration planning is appropriate where it be shown that the research is designed to address and advance identifiable aspects of the planning process. Likewise, monitoring completed projects is an appropriate part of any restoration project, provided it can reasonably be tied to project goals or performance criteria. Consequently, research for the purposes of restoration planning or as part of monitoring may be adopted as an integrated part of a larger suite of actions designed to restore injured resources.

The third scenario - involving research apart from planning or monitoring active restoration projects - is more problematic. Trustees proposing to fund or conduct research activities not obviously tied to planned or completed restoration projects must be able to show how the proposed data collection and analysis is reasonably related to the restoration of natural resources or resource services whose loss gave rise to the damages claim. Absent such a showing the research proposal would not be able to satisfy the required nexus to the restoration of resource injuries and must be rejected.

³Note that in *Kennecott Utah Copper Corp. v. Interior*, 88 F.3d 1193 (D.C. Cir. 1996), the Court rejected a challenge to the CERCLA regulations premised upon the fact that the regulations did not establish a preference for restoring or rehabilitating injured resources or habitat over replacing or acquiring the equivalent of the resources. The Court held that “Congress has not clearly expressed a preference for restoration and replacement over the acquisition of equivalent resources.” 88 F.3d at 1229.

d) Public education and outreach

Educational projects may be acceptable as restoration alternatives provided (a) trustees show a logical connection between the educational project proposed and the behavior it seeks to affect and (b) trustees provide a rationale for concluding that the behavior that will be affected will result in restoration or protection of the injured resources, or prevention of future resource losses. If, for example, the injury to be addressed is mortality to seabirds and discarded monofilament waste is a significant source of seabird mortality, signs placed on fishing piers educating recreational fishermen on the dangers of monofilament waste along with receptacles for the waste may be appropriate. However, where the connection between the educational effort and the targeted behaviors is more tenuous, or the trustees cannot show that the targeted behavior can be expected to impact the resource injuries, the trustees may not be able to demonstrate the reasonableness of selecting the educational project.

e) Public access and use of restoration sites

Trustees act on behalf of the public, who are the beneficiaries of the trust assets that are the basis of natural resource damage claims. The purpose of natural resource restoration is to apply damage recoveries to make the resource and the public whole for the losses suffered. As a result, the benefits of natural resource restoration projects should flow to the public as freely as the services from the affected natural resources flowed before the injuries.

Occasionally, interested parties propose natural resource restoration projects that involve creation of non-public facilities or the creation of or additions to areas under active management that restrict or limit public access. In judging the propriety of use restrictions, trustees should consider the relationship between the use restrictions and the project purpose and goals. Where the affected natural resources, prior to the injuries, generated natural resource services that were available without restriction to the public, restoration projects that are not publicly accessible or are accessible only for a fee cannot be presumed to be reasonably related to the resource injuries. Rather, in such cases trustees must affirmatively show how a restricted-use or access-fee restoration project is reasonably related to the injuries giving rise to the damages claim. Factors that need to be evaluated include:

- What is the purpose of the access restrictions? Keeping people out of fragile or sensitive areas to avoid trampling habitat or disturbing wildlife may be appropriate, especially where necessary to insure success of the project. In such cases, trustees should ensure that the access restrictions are reasonable in light of the project goals.
- What is the purpose of charging an access fee, how is the fee set and how will the proceeds be applied? It is improper for trustees to use public assets (*i.e.*, things received to compensate for injuries to public resources) to fund or subsidize private profit-making ventures. If the project can only generate the intended natural resource services with high levels of maintenance and support (requiring correspondingly high access fees), the burden will be on the trustees to demonstrate convincingly that the project is a cost-effective choice. One important consideration in judging the reasonableness of a project that charges access fees would be whether the facilities or project are made available at

times on a reduced-fee or no-fee basis.

f) Direct restoration of lost human uses

Trustees often must evaluate proposals that are intended to provide human use benefits directly, as opposed to indirectly via restoration of a resource that produces the services used by the target human population. For example, building a fishing pier will provide opportunities for more people to catch fish or current users to catch more fish. Enhancing fish stocks will produce more fish to be caught. Either project as a practical matter could compensate for lost fishing opportunities.

Both the CERCLA and OPA regulations interpret the relevant statutes to authorize trustees to recover for lost resource services as part of natural resource damage claims.

The measure of damages is the cost of restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. Damages may also include, at the discretion of the authorized official, the compensable value of all or a portion of the services lost to the public for the time period from the discharge or release until the attainment of the restoration, rehabilitation, replacement, and/or acquisition of equivalent of the resources and their services to baseline.

43 C.F.R. §11.80(b).⁴

The goal of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. §2701, *et seq.*, is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident). This goal is achieved through the return of the injured natural resources and services to baseline and compensation for interim losses of such natural resources and services from the date of the incident until recovery.

15 C.F.R. §990.10. Given the statutory requirement that all recovered damages (*i.e.*, not only the recovered cost to restore natural resources but the value of the lost services) be retained by trustees for restoration purposes, it is consistent with either statute that restoration projects be designed to restore, replace or acquire the equivalent of the lost services as well as the resources themselves.

Direct restoration of lost human uses of injured natural resources would be consistent

⁴This provision of the regulations was invalidated by the Court in *Kennecott Utah Copper Corp. supra*, n. 3. The Court did not reject the notion that damages can be measured by the cost of restoring lost resource services. Rather, the Court found a fatal ambiguity between the text of the regulations and the regulatory preamble in which the Interior Department explained this portion of the rules. *Id.*, at 1220. The Court noted that the effect of its invalidating this provision was to reinstate the relevant provisions of Interior's previous regulations, which referred only to the restoration of resource services, not to the restoration of the resources and their services. *Id.*

with the regulations under either statute. The CERCLA regulations authorize trustees to consider alternatives that include intensive action to return the lost services to baseline conditions as quickly as possible. 43 C.F.R. §11.82(c)(1). The OPA regulations preamble refers explicitly to actions to improve access to natural resources, and adds the stipulation that service-restoration projects should not be undertaken separately but as part of an overall plan for restoring lost or injured natural resources:

In general, both primary and compensatory restoration of services must be accomplished through actions to restore natural resources or to preserve or enhance the amount, quality, and/or availability of natural resources that provide the same or similar services. This may include actions to improve access to natural resources, although in selecting such actions, the trustees must carefully evaluate the direct and indirect impacts of the improved access on natural resource quality and productivity. In the natural resource damages context, a service may not be viewed as an abstract economic unit or activity that may be restored independently of the natural resources from which the service flows.

61 Fed. Reg. 440, 452 (Jan. 5, 1996)⁵. In short, a project designed to more rapidly restore lost human use services by creating, improving or enhancing opportunities for people to use the services provided by the injured natural resources would be consistent with either statute, but only if undertaken as part of a plan that involves restoration of the injured resources themselves.

In the one reported case to date that has addressed the issue, the Court declined to find that the proposed settlement was unreasonable because it devoted 36% of the recovered funds to recreational enhancement projects. The Court stated it was unwilling to scrap the habitat restoration projects it described as the positive features of the settlement, but it did recognize that the challengers' "concerns about disproportionate spending on recreational enhancements are legitimate." *U.S. v. Fort James Operating Co.*, 313 F.Supp.2d 902, 910-911 (E.D. Wisc. 2004). The Court's reservations suggest that while projects directly restoring lost human uses are legitimate, there are limits on how much effort trustees may spend on such projects and still have a restoration plan considered legally defensible.

To satisfy the threshold requirement that restoration actions must have some demonstrable reasonable relationship to the injuries giving rise to the claim for natural resource damages, trustees must evaluate the likelihood that the proposed lost human use restoration projects will be used by the populations that suffered the losses being restored. The more the use proposed to be restored differs in location or type from the uses lost as a result of resource injuries, the greater the need for the trustees to affirmatively show the linkage between the

⁵The preamble to the proposed 1994 revision of the CERCLA regulations contains language interpreting CERCLA similarly to prohibit mere restoration of natural resource services independently of actions to restore the injured resources. "However, the Department does not believe that Congress intended to allow trustee agencies to simply restore the abstract services provided by a resource, which could conceivably be done through an artificial mechanism. For example, nothing in the language or legislative history of CERCLA suggests that the replacement of a spring with a water pipeline would constitute 'restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.'" 58 Fed.Reg. 39339-40 (July 22, 1993).

injuries and the proposed project.

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Synopsis of Legal Guidance Regarding Natural Resource Damage Restoration Under CERCLA and OPA

1) Threshold Criteria

a) Restoration actions must have some demonstrable reasonable relationship to the injuries giving rise to the claim for natural resource damages

The trustees must show that there is a nexus between the restoration and the injuries. *I.e.*, the trustees must demonstrate that there is some reasonable relationship between the proposed restoration actions and the injuries giving rise to the recovered damages. The information needed to demonstrate that a reasonable relationship exists will depend mainly upon the facts of the case. The sufficiency with which trustees must demonstrate the relationship will vary based upon the similarity or difference between the nature and location of the project and the nature and location of the injuries. The amount and type of proof required also will depend upon the procedural context in which the project is being proposed.

b) Restoration options chosen must be technically feasible and have a significant likelihood of success

At a minimum, for a restoration proposal to be technically feasible there must be evidence the technology underlying the project exists and that the technology can actually be applied to achieve the restoration goal. The analysis should consider not just the efficacy of the technology to be employed but the management feasibility of the project.

c) Restoration projects must comply with applicable laws and regulations

d) Restoration projects must be consistent with adopted restoration plans

2) Additional Considerations in Selecting a Restoration Option

a) Cost-effectiveness and relationship of benefits expected from the project and the costs of implementation.

The CERCLA and OPA regulations require trustees to consider cost-effectiveness in evaluating restoration alternatives; the OPA regulations require the trustees to select the most cost-effective of two otherwise equivalent alternatives.

b) Community acceptance

While community acceptance is not required for a restoration alternative to be legally valid, it may have a bearing on project feasibility or on whether the project has a reasonable likelihood of success. The lack of community acceptance may also jeopardize the ability to obtain permits needed for project construction.

c) Longevity of the restoration project; enforceability of public interest in project

It is not legally necessary in all cases for a restoration project to be permanent. Rather, the minimum required lifespan of a project depends upon the relationship between the project and the underlying damages claim. Project ownership and custodianship arrangements should reflect the intended project longevity. Where a non-governmental entity is to be the recipient of the underlying property interest for a project site, one or more trustees must at least have a contractual right, equal in duration to the property interest, to compel the custodian to enforce the property interest.

d) Integration with existing management programs; matching funding sources; duplication or substitution for other authorities

When trustees choose to partner with existing management programs of one the trustees, the trustees must ensure that the evaluation of alternative projects is fair and objective. The fact that recovered damages are being used to benefit an existing agency program can lead to criticism by proponents of rejected alternatives and closer public scrutiny of trustee decisions. The trustees should ensure the record of their decision shows a balanced analysis of available alternatives in light of adopted project selection criteria and that it clearly supports the alternative chosen.

Trustees need to ensure that any constraints on or policies of other programs with which they are partnering or integrating do not conflict with or prevent realizing trustee restoration goals. Other laws that require habitat improvements to compensate for losses (such as Clean Water Act section 404 fill mitigation requirements) reflect the legislative intent to mitigate for, offset, or recover for losses distinct from natural resource damage claims. It would be inconsistent with congressional intent for trustees to grant credit against natural resource damage claims for mitigation or restoration actions required under such authorities.

e) Other regulatory criteria

The CERCLA and OPA regulations provide other factors that trustees are to consider in evaluating alternative proposals, including, *inter alia*, prevention of future or collateral injury, effect on public health and safety, and the extent to which each alternative benefits more than one natural resource and/or service. Trustees must ensure that the record of their decision in selecting between alternatives demonstrates consideration of these factors.

3) Particular Circumstances

a) Prevention of future injuries or losses

The law does not prohibit selecting a restoration alternative simply because the project is primarily aimed at preventing future losses. However, trustees pursuing prevention strategies should ensure they can show a reasonable link between the events or actions to be prevented and the natural resource losses associated with the case.

b) Habitat Acquisition

Habitat acquisition alone - without any active restoration actions - is legally permissible as a restoration alternative intended to prevent the loss of existing habitat values. Trustees must be able to show that the services to be preserved through the habitat acquisition are reasonably related to the resource injuries giving rise to the claim, and that there is a reasonable likelihood that the habitat values on the property would otherwise be lost.

c) Research; data collection and analysis

Research needed for restoration planning or monitoring performance against restoration project goals is an appropriate expenditure of damage recoveries. Trustees proposing research independent of planning or monitoring must show how the data collection and analysis is reasonably related to the restoration of resources or services giving rise to the damages claim.

d) Public education and outreach

Educational projects may be acceptable as restoration alternatives provided (a) trustees demonstrate a reasonable nexus between the proposed educational project and the behavior it seeks to affect, and (b) trustees provide a rationale for concluding that the behavior that will be affected will result in restoration or protection of the injured resources, or prevention of future resource losses.

e) Public access and use of restoration sites

The benefits of natural resource restoration projects should flow to the public as freely as the services from the affected natural resources flowed before the injuries. Where the services of the affected natural resources, prior to the injuries, were available without restriction to the public, restoration projects that are not publicly accessible or are accessible only for a fee cannot be presumed to be reasonably related to the resource injuries. Rather, in such cases trustees must affirmatively show how a restricted-use or access-fee restoration project is reasonably related to the injuries giving rise to the damages claim.

f) Direct restoration of lost human uses

A project designed to restore lost human use services more rapidly by creating, improving or enhancing opportunities for people to use the services provided by the natural resources would be consistent with either statute if undertaken as part of a plan that involves restoration of the injured resources themselves. To satisfy the threshold nexus requirement, trustees must evaluate the likelihood that the proposed lost human use restoration projects will be used by the populations that suffered the losses being restored.

Attachment 4 – DOE Process for Integrating Response and Restoration

U.S. Department of Energy Suggested Process For Integration of Response Actions With Natural Resource Restoration Actions

The DOE suggested integration process is an illustration of how integration can work at other sites. The process builds upon the PAS phase, in which the ultimate question - *Will or have the response actions carried out or are planned, sufficiently remedy the injury without further action?* - remains unanswered or is answered “unknown” at sites with no or an unknown scope of restoration. Additional inquiry designed to answer this question, is integrated into the response action process, i.e., collection of the key ecological and natural resource data. The basis for integration lies in designing key Data Quality Objectives (DQOs) to collect the data needed to elucidate the answer to the ultimate PAS question.

Operable unit (OU) project managers are responsible for developing DQOs because DQOs are used as input into the work plans for these risk assessments. They may look to several sources of available assistance in developing ecological and natural resource DQOs, e.g.: Natural Resource Trustee Councils and other stakeholder groups; a central DOE NRDA guidance Steering Committee; and EPA's regional office ("Biological Technical Assistance Groups (BTAG)).

The Trustees at several DOE sites are represented on Trustee Councils or identified in site-specific Memoranda of Understanding (MOU). The Natural Resource Trustees can assist DOE's project managers by contributing their technical expertise to site conceptual modeling and DQQ development. Together, these form the framework for a risk assessment model of the site.

The DQOs should be used by OU project managers to: 1) develop decision rules and error tolerances for data collection; and, 2) collecting key ecological and natural resource data for baseline and other risk assessments. The Trustees, in turn, should use the ecological risk information developed at the OU level to refine the ecological and natural resource risk conceptual models and to provide input at appropriate decision points.

Natural resource risk integration should carry through as cost comparison planning during the feasibility study phase of a RI/FS, when short and long-term costs of response alternatives are compared. Failure to estimate potential natural resource restoration costs could result in inadequate life cycle cost projections for the proposed response action. However, performance of a NRDA, *per se*, is not the preferred approach for cost estimation because compensatory damages may overestimate restoration costs. Cost comparisons in a FS should be a "with" and "without" accounting of the potential costs for restoration.

The integration of natural resource restoration values into response can be implemented without additional work elements being introduced into the environmental project budget. All the described activities fall within the scope of existing environmental restoration project work breakdown structures. The steps suggested below describe a comprehensive approach to

integrating natural resource values in environmental restoration projects:

- Establish Trustee stakeholder groups and provide them with opportunities for meaningful participation in the environmental restoration process.
- During project scoping, remedial project managers and Trustees prepare a conceptual model of the operable unit or release site, which includes the natural resource information provided by technical sources and the Trustees.
- In consultation with the Trustees, DOE project managers develop data quality objectives for the collection of ecological and natural resource data, for input into RI/FS work plans (i.e., CERCLA site investigations and baseline risk assessments).
- The project investigation is executed by DOE project managers.
- The baseline risk assessments need not aim to characterize all conceivable ecological risks related to releases under study, however, the potential effects of the release or contemplated response actions on natural resources and services should be characterized and estimated.
- Risk assessment results should be used by OU managers and the Trustees to: 1) refine their natural resource/ ecological site conceptual model; and 2) design optimal remediation strategies which minimize or eliminate natural resource risk.
- Available exclusions from CERCLA Section 107 natural resource damage liability should be identified and applied.
- For potential damages that do not meet the liability exclusion criteria, an abbreviated or "scoping" assessment of restoration costs based on lost or injured resource service values can be incorporated by OU project managers into project feasibility study analysis as a "life cycle" cost input for a particular response alternative. [A life-cycle cost analysis would consider remedial design/action implementation costs, plus operation and maintenance, plus restoration costs]. This type of life cycle cost analysis should appear in the final FS. The alternative risk management actions which address any natural resource service losses should be coordinated with the Trustees.